DEPARTMENT OF COMMERCE
WASHINGTON, D. C.

MONTHLY NEWS BULLETIN
of
COMMERCIAL STANDARDS GROUP, BUREAU OF STANDARDS
(This Includes: Division of Simplified Practice; Division of Specifications; Commercial Standards Unit; American Marine Standards Committee)
Address Inquiries to Commercial Standards,
August 15, 1928 Room 316 Commerce Building, Washington. No. 41.

TABLE OF CONTENTS

	Paragraphs		Paragraphs
Adherence to Simplification.....	3	Proposed Automotive Standards ..	5
Army Benefits Through Waste Elimination.....	6	Recent Activities of the Commercial Standards Group.....	20
Australians Report on U. S. Industrial Conditions.....	9	Recommendations in Acceptance Stage.....	16
Better Quality and Lower Price..	1	Simpler Stocks Needed.....	7
British Printers Adopt Standards	12	Statistical Information an Asset to Business.....	10
Company Takes up Simplification.	11	Summary of Quarterly Report.....	2
Consumer Demand to be Studied...	19	Swedish Grade-Marking.....	17
Forms Gray Iron Institute.....	8	The Invoice Form.....	14
Importance of Standardization...	13	To Make Survey of Industrial Equipment.....	15
Marking of Linens.....	18		
Modernization of Methods.....	4		

---

1. BETTER QUALITY AND LOWER PRICE

Ray M. Hudson, Assistant Director, Commercial Standards.

The constant cry of the buyer from the early days of barter has been "better quality and lower price", - better value for the same or for less money. The problem of answering the buyer to his full satisfaction, under present conditions, is bothering many a manufacturer. No one solution to this problem applies in all cases; a choice may have to be made according to the nature of the business, but there's no use saying, "It can't be done". There are too many examples of the man who says, "It can't be done", being interrupted by somebody doing it.

Scientific research is enabling manufacturers to improve the quality of materials entering into their products. It is also bringing out hitherto unknown or little understood properties of commonplace materials. New and substitute materials are coming to the front in several fields, oftentimes possessing certain advantages to the consumer over the materials they have displaced. Quality improvement through research is not new to American industry, but the steadily widening application of research reflects a growing appreciation of its value in bettering quality.

Simplification is likewise contributing to this end. Concentration of effort on a simplified line often makes it possible to improve the quality of a product. Defects, even minor faults, which in the days of too many lines, short runs, and frequent changes of machine set-ups, were overlooked, are emphasized by reason of their proportions even though the frequency of their occurence may be no greater than before.

But when units are made by the thousand instead of by the hundred, then the "seconds" make a larger pile and attract more notice. Someone gets curious; somebody wants to know why the pile is so big. Then corrections begin. Maybe better raw material is bought, more care is given it in process, perhaps the machines are improved. Eventually, the cause is located and the frequency of the defect is cut down. Product quality is improved as the result of simplification. So far as simplification has coincidently helped to make mass production possible and thus lower unit costs, it has made a double contribution.

By reducing "seconds", spoiled work or scrap, and by lowering unit costs, simplification has provided the manufacturer with one answer, - and a profitable one at that, - to the buyers age-old cry, - "Better Quality and Lower Price".

2. SUMMARY OF QUARTERLY REPORT - During the quarter ending June 30, 1928, seven new simplified practice recommendations were completed, making a total of 95 completed recommendations to date. During the quarter 11 new projects were suggested to the Division of Simplified Practice. There are at present 39 active projects.

   During the quarter the total acceptances of simplified practice recommendations increased from 9,465 to 10,637. Nine general and twenty-one preliminary conferences were held by various industries, under the auspices of the Division of Simplified Practice, for the purpose of discussing simplification.

   During this same period five general and twelve preliminary conferences were held under the auspices of the Commercial Standards Unit.

3. ADHERENCE TO SIMPLIFICATION - A total of nine simplified practice recommendations came before their respective standing committees for review during the quarter ending June 30, 1928. Three were revised, five were reaffirmed, and one (Simplified Practice Recommendation No. 23 - Sheet Steel) the standing committee deemed necessary to divide into two portions, to be published separately, one on Sheet Steel and the other on Iron and Steel Roofing, the latter to be known as Recommendation No. 78.

   Of the nine recommendations reviewed, six were supported by factual surveys, while estimates of adherence were accepted for two, and one was reaffirmed without either a resurvey or estimate. The average degree of adherence as determined by surveys was 83.97 per cent for the six recommendations. The estimated adherence for the two without surveys was 80 and 89 per cent respectively. The average degree of adherence for these figures is 84.32 per cent.

4. MODERNIZATION OF METHODS - The small manufacturing concerns must adopt modern methods to survive according to Dwight A. Smith, construction engineer, and Robert E. Branch, mechanical engineer, of San Francisco.

In a recent article appearing in one of the trade papers these two writers stated that the "present hit and miss methods of manufacture must be supplanted by advanced production methods if small concerns are to come through the present period of intense competition".

5. PROPOSED AUTOMOTIVE STANDARDS - Forty new and revised standards for aircraft and motor vehicle parts and fittings are covered in reports submitted by divisions and subdivisions of the standards committee of the Society of Automotive Engineers. Eighteen of these relate to aeronautic standards, such as dimensions, weight and the like of aircraft storage batteries, propeller hubs, tail-skid shoe mountings, engine starter mountings and instrument mountings and aircraft hardware.

Of the recommended new standards, twenty-one are new specifications and seventeen are revisions of existing standards as printed in the S. A. E. Handbook.

Of most popular interest in connection with motor vehicle standards is the proposed standardization of 18 baloon tire and rim sizes to greatly reduce the existing number, viscosity numbers for prediluted crankcase lubricating oils as well as undiluted oils, sizes of incandescent lamp bases and sockets to avoid too tight or too loose fits, air-cleaner mounting dimensions, spark plug tolerances, and plate glass specifications covering the quality of the glass supplied to the car manufacturer.

6. ARMY BENEFITS THROUGH WASTE ELIMINATION - The entire military service has been given a new point of view regarding economical administration by an efficiency survey recently ordered by the Secretary of War, Dwight F. Davis, according to a statement by the War Department. Several months ago he directed the initiation of a survey to see that the maximum was rendered by every dollar of army appropriations, with the statement that he wanted a careful and thorough check on all business transactions and procedure in the army. All waste was to be eliminated. That no one would be spared was shown by the fact that he directed the inspection be started in his own office.

7. SIMPLER STOCKS NEEDED - Stocks simplification, even in a well managed drug store, is a vital need, it is revealed by current analysis of toilet goods sales, covering six months' sales of toilet goods in a Philadelphia store of the typical "residential" type. This analysis showed that in this period 5,592 sales had been made on 434 lines, but that 159 of them had produced 4,155 sales. This was 74 per cent of the total.

The amount taken in on the 5,592 sales, nearly a third of which were made up of dental goods, was $1,922. This brought the average sale to a little more than 34 cents. In the five principal groups of goods carried the number of lines represented in the total of 434 ranged from 13 of hand goods to 132 of facial. The average sale in the five groups was as follows: Hair goods, 36 cents; shaving, 46 cents; dental, 34 cents; facial, 41 cents; and hand, 36 cents. Stock turnover for the six months ranged from a rate of 4.2 times a year in facial goods to 9.6 times in dental. The gross margin of profit showed a low of 32 per cent on shaving goods and a high of 37 per cent on facial.

8. FORMS GRAY IRON INSTITUTE - Among recently formed trade associations is the Gray Iron Institute, organized on a permanent basis during a meeting in Philadelphia of gray iron foundry interests. The stated purposes of the Institute are as follows: (1) Promotion of sound business ethics in the industry; (2) Collection and distribution of information relative to the manufacture of gray iron castings; (3) Study of new methods for merchandising gray iron castings, to strengthen present markets, to develop new markets and to discover new uses; (4) Promotion of uniformity in methods of cost accounting; (5) Research work to further improve the quality of gray iron castings; (6) Establishment and maintenance of standards of quality for gray iron castings.

9. AUSTRALIANS REPORT ON U. S. INDUSTRIAL CONDITIONS - An opportunity to "see ourselves as others see us" is afforded American business by the 88-page printed report of the Australian Industrial Delegation on its investigation of "the method employed in, and the working conditions associated with, the manufacturing industries of the United States".

The Industrial Delegation spent four and a half months early in 1927, visiting 56 cities representing many kinds of manufacturing in all parts of the United States. The investigation was planned to procure "a volume of facts and recommendations which might aid in increasing the efficiency and promoting the development of the secondary industries in Australia." Included in the report were the following subjects: capital, research, management, efficiency of plants, efficiency of personnel, standardization and simplification, and elimination of waste, etc.

10. STATISTICAL INFORMATION AN ASSET TO BUSINESS - The practical application of current statistical information by American business men has been one of the outstanding factors in our generally sustained prosperity during the last five years, according to Mortimer B. Lane of the Census Bureau in a study of the use of current business statistics just issued by the Commerce Department. Periods of similar commercial and industrial activity, it is pointed out, have as a rule been characterized by more or less violent fluctuations. Nearly three hundred specific instances of the use of statistics in business have been collected by Mr. Lane who presents suggestions as to how these figures may be used to the best advantage. The small business man, he states, has been particularly benefited through the use of current statistics, information he could not hope to obtain without collec-

The rise of statistics from small beginnings to a position of such commending importance, it is pointed out, has been a definite response to the growing needs of business. The business executive of today can not have either in his mind or in the possession of his own concern all the facts necessary for intelligent business judgment. He must not only know how his firm is doing but must compare his branch of industry with industry as a whole and must know the buying conditions of his customers as well as the condition of his material markets. These data he cannot get within his own organization for they can be gathered only by agencies representing or collecting figures for an entire industry.

The result of this need of the business world has been the growth of statistical services by government departments, trade associations, periodicals and individual business concerns. The data thus collected are brought together by the Bureau of the Census and presented in the Commerce Department's publication "Survey of Current Business". Through the medium of this survey the public now has the benefit of no less than 1,700 separate indicators of business trends.

Almost all important business organizations now make use of statistical information for the guidance of their respective activites, including such important industries as the textile, machinery, oil, leather, automobile, chemical, lumber, food products, advertising and insurance. The meaning of the various statistical terms is explained, with examples of their interpretation, taken from the experience of business firms.

Copies of "How to Use Current Business Statistics" may be obtained for 15 cents from the Superintendent of Documents, Government Printing Office, Washington, D.C.

11. COMPANY TAKES UP SIMPLIFICATION - Simplified Practice is being taken up in earnest by the Johns-Manville Corporation, a simplification committee having been recently appointed by the President of the Corporation, to make a systematic study of its products, with a view to simplifying the present lines. The concern is at the present time manufacturing more than 2800 different items.

Manufacturers are finding it very expensive to make a small quantity of a certain item, in these days of high labor and machine costs. Long runs on standardized goods are found much more profitable and, generally, adequate. The savings effected by simplification, as reported by numerous industries are really remarkable, and fully deserve the wholehearted cooperation of every manufacturer. Incidentally they benefit the general public by making possible lower selling prices.

12. BRITISH PRINTERS ADOPT STANDARDS - The Federation of Master Printers, a British organization, has been active in the movement for standardizing paper purchases as have the printers in the United States. The English movement has been joined by the wholesale stationers. Up to 1925, paper was sold by the ream, which might run anywhere from 472 to 516 sheets, according to the class of paper.

The printer wasted a good deal of time in estimating and counting the number of sheets required for a given job. Purchases are now to be made, or at least are recommended, on the basis of 1,000 sheets, and packed in thousands, reams of 500, or packages of 250. The initiative in this movement came from the Stationery Office, which is the largest user of book paper in Great Britain, and requires the new standard in the tenders which it receives.

13. IMPORTANCE OF STANDARDIZATION - Efforts toward standardization are regarded by many people as hampering individual initiative and an attempt to make everything alike, states the Mining Congress Journal, editorially, adding, that "the importance of standardization, notwithstanding its opponents, is of very great value to all industries and particularly to the mining industry.

"The average manufacturing plant is located near some central source of supply for the securing of parts, while the mining plant is located where the mineral exists and usually at a point distant from where supplies can be obtained. The latter is therefore, required to keep on hand a considerable supply of the various parts and where each machine had its own size screw bolts and other parts, it was necessary to keep a number of stocks of supplies in order to have them available in times of breakdown.

"Standardization has another advantage which perhaps has been lost sight of, says the Mining Congress Journal, viz., that the cost of production is less for a larger number of parts. For instance, the American Engineering Standards Committee recently adopted standard hexagonal head cap screws which can be obtained at a cost of $9 per hundred, while the old style screws in the same size but of different makes and in small lots, cost from $49.90 to $70.00 per hundred.

"The isolated manufacturing plant, no matter what its character, has a decided interest in such standardization as will enable it to reduce the stock of supplies and parts required, and all plants wherever located, have a decided interest in securing these parts at that low cost which is made possible by mass production", concludes the editorial.

14. THE INVOICE FORM - In writing of the reorganization of the purchasing methods in use by the Canadian National Railways in The Railway Age, Mr. H. L. Taylor, Assistant Purchasing Agent, states that "the standard invoice form was adopted shortly after its approval by the American Railway Association. Since the simplified invoice form has come into existence, firms are being urged to adopt it. Fully 75 per cent of the invoices are now either on standard or simplified forms". According to Mr. Taylor, advance contracts, simplified practice, and educational classes bring more efficient operation on the roads.

15. TO MAKE SURVEY OF INDUSTRIAL EQUIPMENT - The Department of Commerce is about to undertake a requested study of industrial equipment. One objective of this study which will be conducted by the Domestic Commerce Division, is to determine the amount of obsolete equipment and its importance as a factor in the inability of firms manufacturing similar products to compete on an equally profitable basis. The replacement of machinery which in point of service may have many years of usefulness but which in point of satisfying the latest fancies of the consumer market is obsolete, is an important matter for the manufacturers and one which is behind the request for the survey to be made by the Department.

16. RECOMMENDATIONS IN ACCEPTANCE STAGE - As of July 1, 1928, there were twenty simplified practice recommendations in process of acceptance. Before they can be published by the Department of Commerce, at least 80 per cent of the manufacturers, distributors and users, by volume of annual production, must accept them in writing.

These recommendations apply to Vegetable Shortening Containers, Lead Pencils, Turnbuckles, Iron and Steel Roofing, Malleable Foundry Refractories, Folding and Portable Wooden Chairs, Binders Board, Hollow Metal Doors, Kalamein Doors, Composition Books, Adhesive Plaster, Surgical Gauze, Forms for Concrete Ribbed Floor Construction, Floor Sweeps, Coated Abrasive Products, Hacksaw Blades, Ply and Yarn Goods of Hard Fiber Cordage, Tags paper, Fire Engines, and Lift Trucks.

17. SWEDISH GRADE-MARKING - "Grade-marking" is the back-bone of the Swedish lumber industry, according to Mr. Axel F. Wallenberg, internationally known Swedish lumber producer and former Minister of that country to the United States. In a recent communication to the National Committee on Wood Utilization of the Department of Commerce, Mr. Wallenberg strongly supported the system of marking every piece of lumber with a symbol indicative of its grade or quality.

"From my experience, the grade-marking of Swedish lumber has been the back-bone of the industry because consumers of Swedish lumber, in practically every country of the world know that the quality of Swedish lumber is as represented by the grade-marks" he said in his communication. "Year in and year out the consumers are demanding the same quality and this has, naturally, stabilized the trade."

18. MARKING OF LINENS - The National Better Business Bureau, Inc., with its affiliated 43 local business bureaus is sponsoring a movement for the accurate marking of all linens to measure. Eighty-six importers, representing 60 per cent of the trade, are said already to have agreed to follow that Bureau's recommendation in their business.

19. CONSUMER DEMAND TO BE STUDIED - The Domestic Commerce Division of the Department of Commerce is about to undertake a study of consumer demand, with respect to groceries. The results of the study will supplement studies of distribution costs in the wholesale and retail grocery trade, now being compiled by that Division. The importance of consumer demand in influencing methods of distribution, as well

as types of product and methods of packaging, is coming to be appreciated more and more. Analysis of the mechanical aspects of production has already reached an advanced stage, and the study of distribution processes is getting under way, but comparatively little has been done to determine consumer buying habits and their possible influence on problems of producers and distributors.

20. RECENT ACTIVITIES OF THE COMMERCIAL STANDARDS GROUP.

DIVISION OF SIMPLIFIED PRACTICE.

WAX PAPER - A survey is being made through the American Waxed Paper Association, to determine the diversity now existing in waxed paper sizes. Data will be secured from both members and non-members of the association.

PAPER TOWELS - The Secretary of the Tissue Paper Manufacturers Association is taking up with his membership the question of making a survey, to be used as the basis of a simplification program.

CONCRETE SEWER MANHOLE AND CATCH BASIN BLOCKS - A committee is now working on a simplification program for this commodity.

PHOTOGRAPHIC PAPER - A meeting of the Simplified Practice Committee of manufacturers of Photographic Paper was held in New York on July 23, to consider the program which the committee has been developing for some time for the simplification of various kinds of photographic paper. It is expected that the final meeting of the committee will be held this month, when the schedule of sizes will be completed, in preparation for a general conference of all interests.

LEAD PENCILS - The final schedule for the simplification of lead pencils has been approved and will be placed before the industry for acceptance in the near future.

LUGGAGE - A member of the staff has been invited to address the Luggage Dealers Convention in New York City on August 17th on the subject "Standardizing Luggage Sizes". The National Luggage Dealers Association has worked out a suggested list of sizes for the consideration of the luggage industry, covering trunks, suit cases, hat boxes, etc. It is the opinion of some that if the industry can arrive at a standardization of sizes, it will be of great economic value to both the manufacturer and retailer.

SCRUB BRUSHES - A meeting of scrub brush manufacturers held in June, voted that a preliminary survey be conducted under the auspices of the Division of Simplified Practice, with the view of developing a simplified practice recommendation covering a list of standard sizes for stock items. A survey questionnaire is in course of preparation.

BEVERAGE BOTTLES - The bottlers of carbonated beverages as well as the bottle manufacturers are seeking some relief from the great variety of heights and capacities of bottles that are being used by the carbonated beverage industry and they have asked for the assistance of the Division of Simplified Practice towards organizing to correct this condition. A preliminary conference was held at the Department of Commerce on Saturday, August 11th, to discuss this problem and the appointment of a simplified practice Committee to conduct a variety survey.

ICE CREAM CANS - The Committee on Simplified Practice, of the International Association of Ice Cream Manufacturers, in conjunction with representatives of ice cream can manufacturing companies, met June 6th, 1928, in New York City, to further the program of can simplification. A display of ice cream cans now being manufactured, enabled the members of the committee to compare the different types and sizes and determine upon simplified list of sizes. It was recommended that these sizes be submitted at the annual convention of the International Association of Ice Cream manufacturers at Cleveland, during the week of October 15th for consideration and criticism. When the standard-sized cans are finally adopted by manufacturers, distributors and users, it will eliminate the confusion now existing because of the many types and sizes of cans on the market.

GLASS CONTAINERS FOR DRUG AND PHARMACEUTICAL INDUSTRY - At a preliminary conference of representatives of the drug and pharmaceutical industry and the Glass Container Association held July 6th, a motion was presented which unanimously carried, that a joint standardization and simplification committee be appointed to consist of one voting delegate and two associate delegates from each of the National Drug and Pharmaceutical Associations and the Glass Container Association of America in cooperation with the United States Department of Commerce for coordinating the efforts of the various groups concerned in the simplification and standardization of glass containers used in the drug and pharmaceutical industries.

GLASS CONTAINERS FOR JELLY AND PRESERVES - A general conference to discuss the simplification of jelly glass and preserve jar sizes and capacities has been postponed until some time in September. This conference will be held in Washington in conjunction with the mid-year convention of the National Preservers Association.

TYPE FACES - For several months the United Typothetae of America and the Division of Simplified Practice of this Department have been cooperating in an effort to ascertain the views of leading printers and manufacturers of type as to the advisability of inaugurating a simplification program to reduce the excessive variety of type faces. At the request of the United Typothetae of America, the Division of Simplified Practice will arrange for a preliminary conference in the fall to consider the subject of simplification of type faces.

FOOD CONTAINERS - Consideration of the general problem of how best to pack, handle and distribute food products is engaging the attention of packers, shippers, grocers and other interested groups. At the thirty-first annual convention of the National Association of Retail Grocers, held in New Orleans, June 11 to 14, 1928, the following resolution was passed:

> "Resolved, that the National Association of Retail Grocers apply to the Department of Commerce, Bureau of Simplified Practice, and the Bureau of Commercial Standards to make a national survey among the retail grocery stores, the wholesale grocers and the food manufacturers to ascertain the need for simplification in the various food and household lines."

HOSPITAL PLUMBING FIXTURES - A tentative simplified practice recommendation for hospital plumbing fixtures has been worked out by the manufacturers of vitreous china, porcelain and enameled fixtures. This recommendation is now in the hands of the Standardization and Simplification Committee of the American Hospital Association for review and further recommendation as to definite types and sizes to be used as standard items for various purposes.

AMERICAN MARINE STANDARDS COMMITTEE.

The American Marine Standards Committee, which in actual operation is regarded as a unit of the Division of Simplified Practice, was organized primarily to promote simplification of practice and economy in the construction, operation and maintenance of ships and port facilities.

In its plan of organization the underlying authority is vested in a membership enrolled from the marine and allied industries. An executive board elected annually from and by the membership, appoints and controls the administrative officers and technical committees, directs the general policies, and defines the technical working program. Its secretary, who is in effect the executive officer, has his headquarters in the Division of Simplified Practice.

During the second quarter of the current calendar year, the Executive Board held one meeting at which it approved the reorganization of the Technical Committees on "Hull Details" and on "Engineering Details". Approved 9 proposed amendments to the Constitution and 13 proposed amendments to the General Rules. Approved the suggestion that standard specifications be developed for wire ropes for marine use, together with information to indicate the most suitable types, grades, and sizes for various specific purposes and decided to develop proposed standard specifications for the prime operations in ship construction. The Board approved the following standards for promulgation:

Revised standard for rigging screws with spliced rope; revised standard for rigging screws with sockets; specification for metallic packing for condenser tubes; specifications for rubber air hose, rubber steam hose, 1-1/2" water hose, 2-1/2" water suction hose, and oil suction and discharge hose, specifications for insulation of piping and machinery.

Approved the following specifications for insulation materials: Magnesia molded pipe covering and blocks; magnesia asbestos cement or plaster; asbestos millboard; hair felt for insulation; cotton duck for insulation coverings; hubs for built-up propellers with flush faces and fairwater caps for same; scupper valves of sizes 3", 4", 5", and 6"; medicine chests and contents for ocean-going vessels, coastwise and lake freighters, and small vessels; steps, heel fittings and caps for tubular steel cargo booms, including proposed alternative standard for the boom caps subject to developement.

At this meeting the Executive Board also created a Standing Committee on "International Standardization of Shipbuilding Details" to which all proposals for international marine standards are to be referred for recommendation to the Board.

-0-